

Amendments to the Specification

Please amend the paragraph beginning on page 3, line 16, as follows:

A pseudo-random or pseudo-noise (PN) sequence, a coded m-sequence of symbols, is used in an OFDM format. An m-sequence is a sequence of symbols, usually 0's and 1's, of a selected length that satisfies three requirements: (1) the number of symbols of different types (e.g., the number of 0's and the number of 1's) is "balanced", or approximately the same, over the set of such sequences; (2) the Boolean sum of any two m-sequences, and the result of end-around shifting of symbols in any m-sequence, is again an m-sequence; and (3) the convolution of two m-sequences, $MS(t;i)$ and $MS(t;j)$, satisfies an orthogonality condition:

$$MS(t+\Delta t;i)*MS(t;j) = \delta(\Delta t) \cdot \delta(i,j), \quad (1)$$

where $[\delta(\Delta t)]$ ~~$\delta(\Delta t)$ is a modified delta function ($\delta(\Delta t) = 0$ for $|\Delta t| > \Delta t_1$)~~ $\delta(\Delta t) = 0$ for $|\Delta t| \geq \Delta t_1$ and $\delta(i,j)$ is a Kronecker delta ($= 0$ unless $i = j$). The Kronecker delta can be omitted if the m-sequence is independent of the index number i , or if the index numbers are known to satisfy $i = j$. The length of an m-sequence is most conveniently chosen to be $2^J - 1$, where J is a selected positive integer, such as $J = 7, 8$ or 9 .